



**US Army Corps
of Engineers®**
Albuquerque District

Draft
Environmental Assessment

For

27th Street Bridge
Section 14 Emergency Streambank Protection
Glenwood Springs, Colorado

Prepared by
U.S. Army Corps of Engineers
Albuquerque District

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1. Introduction

1.1 Project Location and Background

The 27th Street Bridge (also called Sunlight Bridge) is located in the City of Glenwood Springs, Colorado and crosses the Roaring Fork River (River) (Figure 1). In September 2001, the City of Glenwood Springs (City) requested assistance under authority of Section 14-Emergency Streambank Protection of the 1946 Flood Control Act, as amended. The bridge footers were beginning to undercut and threaten the stability of the bridge (see Figure 2). The bridge was originally constructed in 1969. The deck of the bridge was also in need of repair, so in November 2001, the City replaced the deck of the bridge with a heavier new deck. This added weight has made it a critical situation to abate the potential of future channel scour and repair the footers.

1.2 Purpose and Need

The purpose of the project is to stabilize the existing footers in order to protect public property and use of this facility. At the time assistance was requested from the City, the pier footers of the 27th Street Bridge had been scoured and exposed. The footers of the bridge need to be stabilized in order to protect the bridge and the streambank. Construction is proposed to take place in the spring or fall of 2004.

1.3 Regulatory Compliance

This Draft Environmental Assessment (DEA) was prepared by the U.S. Army Corps of Engineers (Corps), Albuquerque District in compliance with all applicable Federal statutes, regulations, and Executive Orders, including the following:

- Clean Air Act of 1972, as amended (42 U.S.C. 7401 *et seq.*)
- Clean Water Act of 1972, as amended (33 U.S.C. 1251 *et seq.*)
- Endangered Species Act of 1973, (ESA) as amended (16 U.S.C. 1531 *et seq.*)
- National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 *et seq.*)
- Procedures for Implementing NEPA (33 CFR 230; ER 200-2-2)
- Regulations for Implementing the Procedural Provision of NEPA (40 CFR 1500 *et seq.*)
- Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898)
- Floodplain Management (Executive Order 11988)
- Protection of Wetlands (Executive Order 11990)
- National Historic Preservation Act, as amended (16 U.S.C. 470a *et seq.*)
- Protection of Historic and Cultural Properties (36 CFR 800 *et seq.*)
- Protection and Enhancement of the Cultural Environment (Executive Order 11593)
- Native American Graves and Repatriation Act of 1990 (25 U.S.C. 3001 *et seq.*)
- Archeological Resources Protection Act of 1979 (16 U.S.C. 470)
- Environmental Justice (Executive Order 12898)
- Federal Weed Act of 1974 (Public Law 93-269; U.S.C. 2801)
- Migratory Bird Treaty Act of 1918

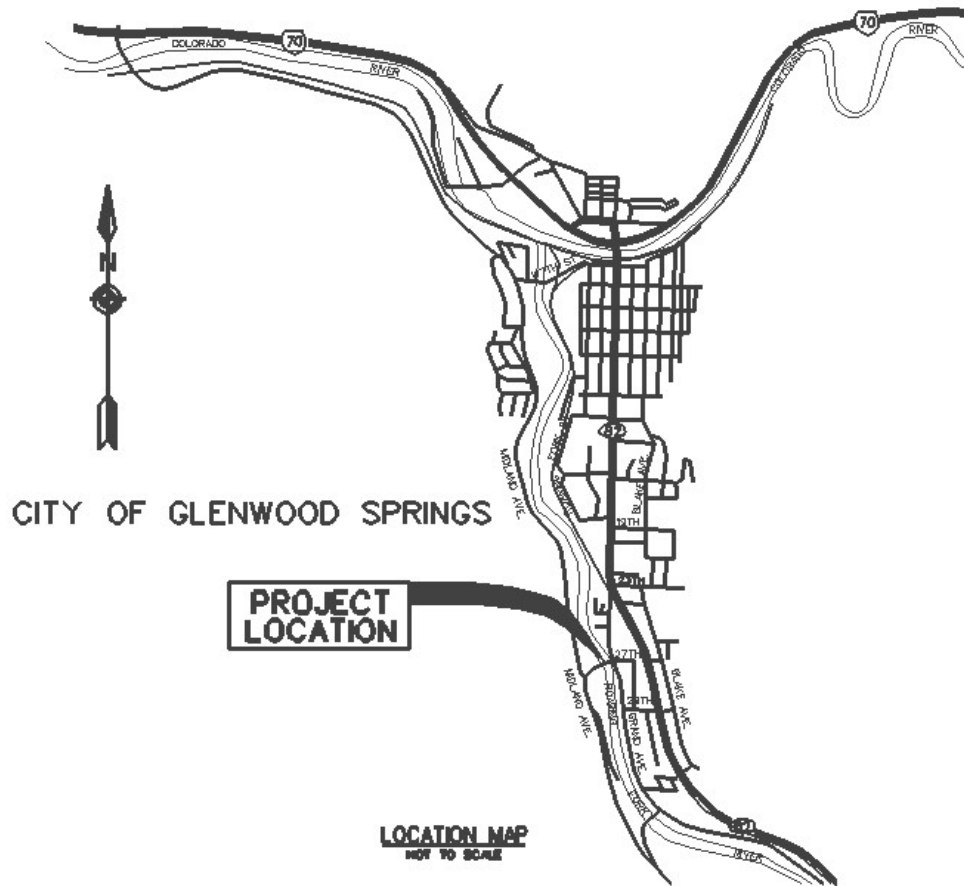


Figure 1. Project location map



Figure 2. View of bridge abutments

This DEA also reflects compliance with all applicable State of Colorado and local regulations, statutes, policies, and standards for conserving the environment and environmental resources such as water and air quality, endangered plants and animals, and cultural resources.

2.0 Alternatives and Proposed Action

2.1 Proposed Action

The Proposed Action would protect existing bridge piers using placed rip-rap boulders. The proposed size of boulders would be in the range of two to four feet. See Figure 3 for a Preliminary Drawing. The boulders would be placed with minimum to no dewater effort. Appropriate equipment such as a dragline, clamshell, or a power excavator would place/dump boulders into an excavated void immediately adjacent to the bridge footings. The excavation/placement operations would be conducted next to the pier, on each side of the Roaring Fork River at the 27th Street Bridge. The proposed construction sequence would be to excavate/dredge material at one abutment at a time. The excavated material would be dragged to the side. Selected equipment would place prepositioned stone material into the just excavated opening in the River. Approximately 250 yds.³ of native rock material would be used as rip-rap on both sides of the River. Once the boulders area dumped in place the dragged/ excavated material from the River would be allowed to fill the boulder voids. Native material is available for the project. Placement of the material will be a disadvantage of this alternative as material will need to be placed during low flow and potentially replaced after high flow events. Construction duration is proposed to be approximately 6-8 weeks.

This alternative was chosen because of the ease of construction in terms of both impact and cost. This alternative would be the easiest to implement with the least impact to the stream cross-section. It would have the least amount of impact on recreational use of the river. Overall it is the most effective alternative, least expensive and won't compromise any significant effectiveness in scour control.

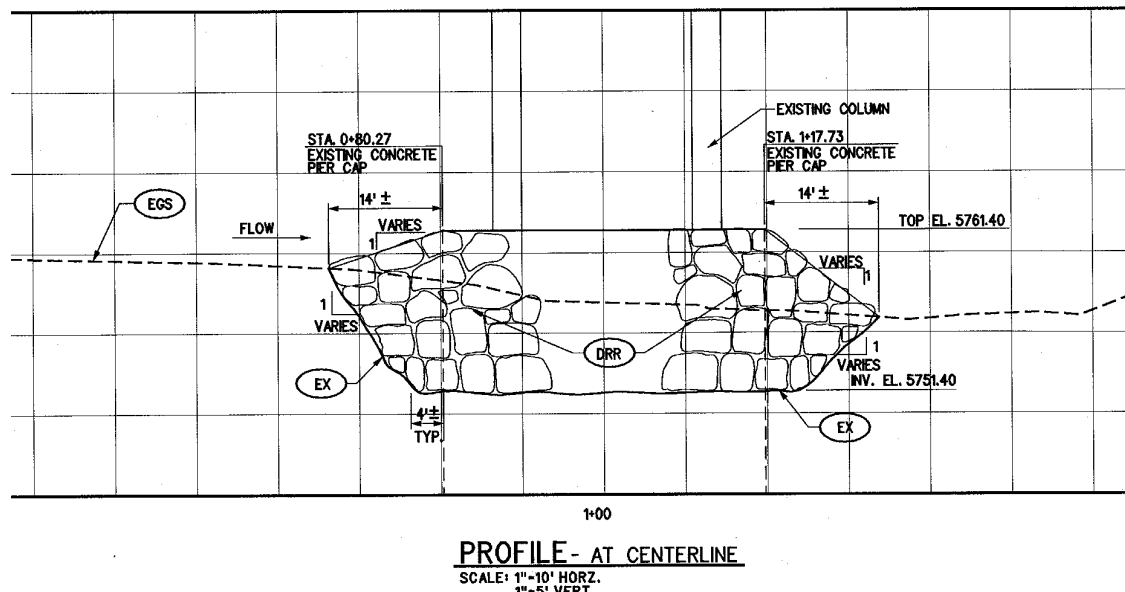
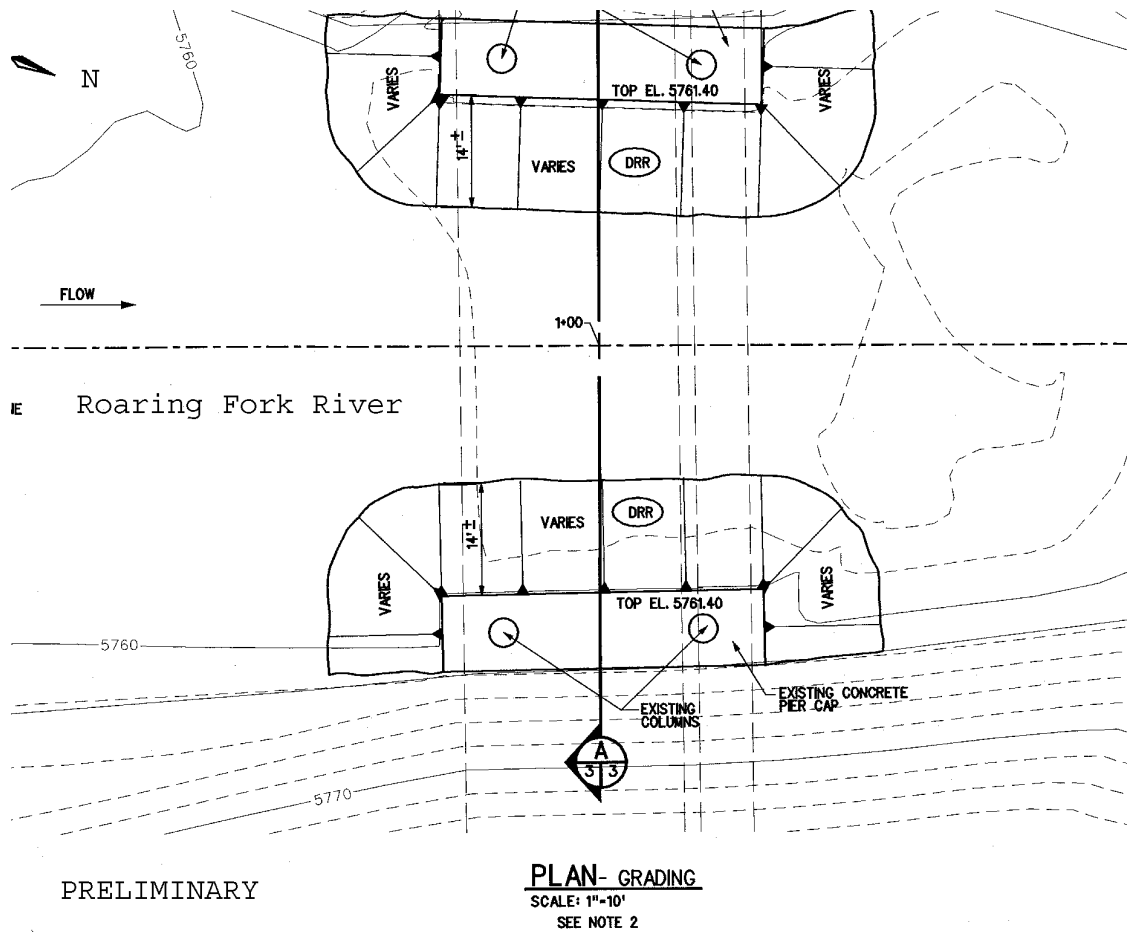


Figure 3. Footprint of Preliminary Construction Plan
27th Street Bridge, Emergency Streambank Protection Project
Glenwood Springs, Colorado, 2003-2004

2.2 Future without project (No-Action Alternative)

Without protection to the bridge footers and streambank, the 27th Street Bridge would be in jeopardy of failing and would not be able to be used by the public. This is one of the few crossings of the Roaring Fork River between the Colorado River to the south end of town. Continued erosion under the bridge footers may also cause material, such as sediment and concrete from the footers, to enter the stream system, allow the banks to erode, and cause potential negative impacts to the River and its ecosystem. If the bridge were to fail it would negatively effect soils, hydrology, water quality, aesthetics, floodplains, wildlife, land use, recreational resources, human health and safety, and socioeconomic factors.

2.3 Alternatives Considered

The following alternatives were considered but found to be more costly and would incur a greater amount of impact to the River system.

- Wire-enclosed rip-rap around and between piers – This alternative would be to place a smaller diameter stone riprap and use baskets to contain the loose rock. Negative impacts of this method include difficult construction in terms of river diversions and dewatering as well as an adverse effect to recreational uses of the river.
- Downstream grade control structure – This alternative would accomplish reducing the scour under the bridge abutments by ‘flattening’ the riverbed in the area of the bridge. A small amount of loose riprap would still be needed around the bridge piers. This option might be the most aesthetically pleasing but it is also one of the most expensive and arduous alternatives.
- W-shape weir configuration – This alternative accomplishes the same ‘flattening’ of the riverbed as described in the alternative above and is also very costly.

Therefore, these alternatives were considered but rejected based on the reasoning listed above.

3.0 Existing Environment and Foreseeable Effects

3.1 Physiography, Geology, Soils

The 27th Street Bridge crosses the Roaring Fork River approximately 1.7 miles upstream (south) of its convergence with the Colorado River. The Roaring Fork River is within the Upper Colorado River Basin, approximately at the boundary of the Colorado Plateau and the Southern Rocky Mountains, in what is termed the Tavaputs Plateau (sometimes called the Roan Plateau) (Reed and Metcalf, 1999). The area is mainly Cenozoic era sedimentary formations. Most of these formations are of Tertiary age and are composed of shale, siltstone, marlstone, claystone, mudstone, sandstone and conglomerate (Reed and Metcalf, 1999).

General soil classes in this are 'warm, intermittently dry, and dark-surface soils' (Reed and Metcalf, 1999). According to the Soil Survey of the Rifle Area, Colorado (Harman and Murray, 1985), general soil classification for the Roaring Fork River are Jerry-Lamphier-Cochetop on the west side of the River, Arvada-Torrifluvents-Heldt in the River, and Morval-Villa Grove on the east side of the River. Soil associations in the project area are classified as Ascalon-Pena complex on the west side of the River and Atencio-Azeltine complex on the east side of the River.

Jerry-Lamphier-Cochetop soils are deep, well drained, and found on moderately sloping to steep soils on mountains and fans. This general soil type as well as the Ascalon-Pena complex is found on the west side of the River at the project area. Jerry soils are on mountainsides and probably found further up the watershed to the west of the project area. The Ascalon-Pena complex has 6-25% slopes and occurs on the steep bank on the west side of the river at the project area. They are found on sides of valleys and alluvial fans. The Ascalon soil is deep and well drained. Effective rooting depth in this soil is 60 inches. Surface runoff is medium and the erosion hazard is moderate. The Pena soil is well drained. Effective rooting depth and erosion hazard is the same as for Ascalon. Native vegetation associated with the Ascalon-Pena complex is mainly needle-and-thread, wheatgrasses, mountain mahogany and sagebrush. Pubescent wheatgrass and western wheatgrass are suitable for seeding in this type of soil.

The Roaring Fork River channel is comprised mainly of the Arvada-Torrifluvents-Heldt complex, which is deep, well drained to somewhat poorly drained soil that is nearly level to gently sloping soils on benches, terraces, alluvial fans, and flood plains. Both Arvada and Heldt soils are found on alluvial fans. Torrifluent soils are nearly level soils on the flood plains adjacent to the Colorado and Roaring Fork Rivers. The surface layer ranges from loamy sand and fine sandy loam to silty loam and clay loam. Underlying layers are generally sandy loam or loam stratified with sand, gravel, and cobbles. Native vegetation associated with this soil complex is mainly cottonwood, willow, tamarisk and water-tolerant grasses, sedges and rushes.

On the east bank above the River, Morval-Villa Grove complex soils exist. These soils are deep, well drained, and occur on moderately sloping to moderately steep soils on

mesa, mountainsides and alluvial fans. This general soil type as well as the Atencio-Azeltine complex occurs on the terrace of the east side of the River. The Atencio-Azeltine complex has 1-3% slopes. Permeability of Zaelitine soil is moderately rapid, and water capacity is very low. Surface runoff is slow and erosion hazard is slight. Suitable seeding for this type of soil includes crested wheatgrass, western wheatgrass, and Russian wildrye.

Minor impacts to soils by the proposed project implementation would be disturbance to the southwest bank for access to the river channel. A maintenance road exists but access from the maintenance road to the river-bed would need to occur and would disturb soil and vegetation minimally in that area. This disturbance would be short-term and during construction only. Best management practices (BMPs) would be implemented during construction. Potential BMPs are listed in Table 1 below. The area would be reseeded with native vegetation once the construction is complete.

Table 1. Potential Best Management Practices (BMPs) to be implemented during construction
1. Daily inspection of vehicles and equipment to ensure that leaks or discharges of lubricants, hydraulic fluids or fuels does not occur. All fuels, lubricants, hydraulic fluids and other petrochemicals, would be stored and dispensed above the 100 year floodplain, and away from rivers, arroyos, or their banks. Equipment use in any rivers, arroyos, and washes would be kept at a minimum. Any petrochemical spills, including contaminated soil, would be contained and properly disposed of at an approved upland disposal site, in accordance with EPA protocol. If possible, existing maintenance yards or areas would be used to store and service construction equipment.
2. Sediment catchments would be constructed to the fullest extent possible, to catch and filter runoff from project construction and staging areas to prevent sediment-laden runoff from entering water courses.
3. Work in the vicinity of water resources would be performed during low/no flow periods and if necessary, a berm would be installed in the arroyo/wash(s) to provide a water-free work area. Only uncontaminated readily compactable soils from within the project limits would be placed as embankment material within any water course. If any other fill materials are used, they would also be free of contaminants and would come from an approved quarry. Silt curtains and stilling basins shall be used to the fullest extent possible to minimize and control water turbidity.
4. Riprap and other bank stabilization material, including temporary and permanent structures placed in any water course, would be free of fines and any other contaminants including chemicals.
5. All topsoil removed during construction would be utilized as the uppermost layer of fill material whenever possible. All disturbed land surfaces would be recontoured as necessary to conform to the natural landscape and contour.
6. Damage to trees and shrubs would be avoided to the fullest extent possible. Revegetation of all disturbed land surface areas by the proposed project would include mulching and reseeded with suitable native plants (grasses and bushes), and a seed mixture and reclamation plan would be agreed to with the local sponsor to assist in soil stabilization and reduce soil erosion. Only uncontaminated soil or alluvium would be

used for revegetation backfills.
7. Existing roads and rights-of-way would be utilized whenever possible and would provide access to the project area. Any stockpile/staging area(s) would be established above the 100-year floodplain. Parking would be limited to the construction corridor and all off-road driving would be kept to a minimum.
8. All temporary structures, non-hazardous wastes, and/or excess materials would be removed from the project area upon completion of the project and be reused/recycled, if practicable. Hazardous materials/wastes, if used/generated during project construction, are subject to all local, State, and Federal regulations.
9. All efforts will be made by the contractor to avoid holes in the ground or other areas that look like they may be homes to wildlife.

3.2 Climate

The climate in the Roaring Fork River basin can be characterized as semiarid. Pronounced climate variations can occur during heavy winter storms and precipitation events. Area elevations range from 5,700 feet in the valley bottom to over 11,000 feet in the nearby mountains (IBAERT, 2002). Average temperatures range 30-40⁰F in the winter to 80-90⁰F in the summer. Average annual precipitation in the valley is 15-17 inches. Snowpack begins to accumulate in late October and snowmelt begins in late April and continues until July. No impacts to climate would occur from the project.

3.3 Hydrology

The headwaters of the Roaring Fork River are at approximately 12,000 feet elevation 30 miles south of Aspen, Colorado. It flows 50 miles to Glenwood Springs down to an elevation of 5,700 feet. At its junction with the Colorado River, the basin drains approximately 1,460 square miles (Gingery Associates, 1977). This includes inputs from tributaries of the Fryingpan and Crystal Rivers. All of these rivers come together at the Roaring Fork upstream of the project area and flow into the Colorado River and drain considerable portions of the Southern Rocky Mountain province in western Colorado.

Flood flows described in the Flood Plain Information Report (1977) are described as follows: “As flood flows increase, masses of debris may break loose and cause a wall of water and debris to surge downstream until another obstruction is encountered. In some instances, debris may collect to the point where structural capability is exceeded and a bridge is destroyed or abutments and approaches eroded and roadbeds and railroad beds damaged.”

Major recorded floods on the Roaring Fork River are snowmelt derived and occurred in late May or June. A peak discharge was recorded on July 1, 1957, due to rainfall coinciding with high snowmelt. The flood of 1884 is considered to be the most severe flood recorded. Other floods were recorded and took place on June 23, 1917; June 22, 1918; and June 14, 1921. These floods were recorded with cubic feet per second (cfs) readings at 17,000-19,000 at the U.S.G.S. Gage Station 850. One of the highest flows recorded since that time was 8,280 cfs on June 15, 1973. A number of events have occurred since this time. These events are shown on Figure 4 below (USGS, 2003).

USGS 09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO.

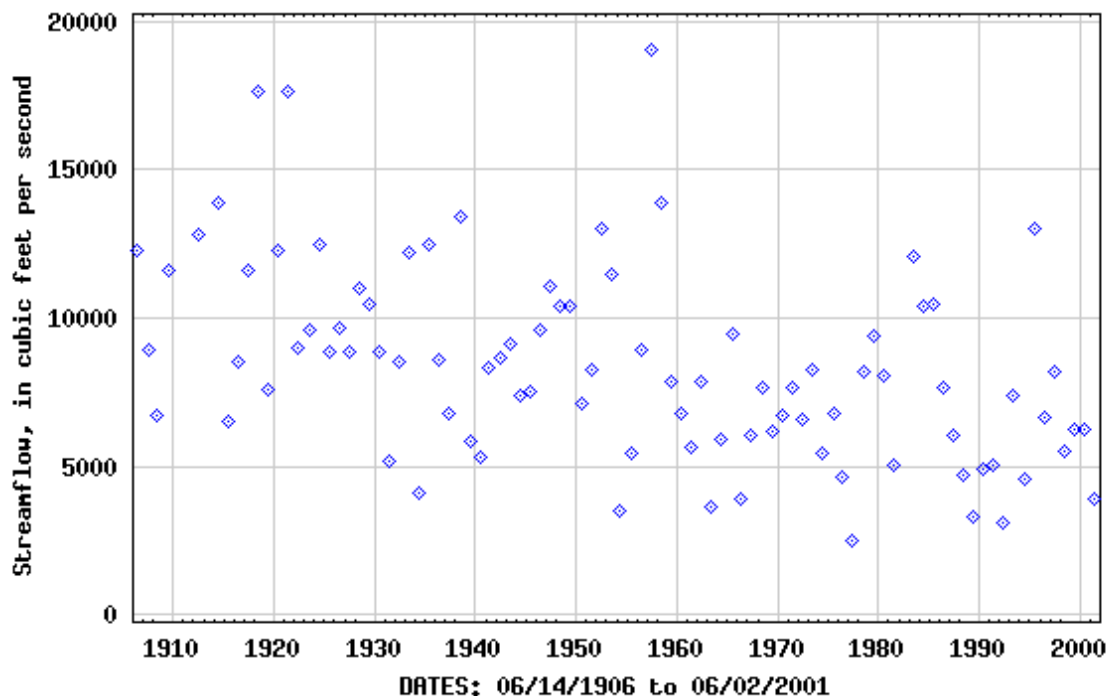


Figure 4. USGS Gage #09085000 Roaring Fork River Peak Flows at Glenwood Springs, CO: 1910-2000

Construction is proposed to take place in Spring 2004 before major snowmelt occurs or September 2004 after high summer flows. Average mean streamflow during February is 403 ft³/s and is 447 ft³/s in March (1906-2002). In April, mean flows begin to increase to an average mean of 849 ft³/s and by May up to 2,755 ft³/s. See Figure 5 for a graphic display of monthly streamflow February-May, 1906-2002. A graphic display of July to September would be the opposite of Figure 5 in that flows are decreasing from an average mean streamflow of 2,478 ft³/s in July, 1,012 ft³/s in August and down to 748 ft³/s in September. It is planned to have construction complete by mid-April before flows begin to increase to a great degree or beginning in September after major summer flows have subsided.

A minimum to no dewatering effort would occur. If diversion is warranted then flows would be diverted opposite the abutment and bank side that is being worked on. The time frame for work is fairly short and therefore, minimal short-term effects on hydrology in that specific area would occur. This would just be during the project construction and it is not foreseen to have effects upstream or downstream. Therefore, the Proposed Action alternative would not have a significant affect on hydrology.

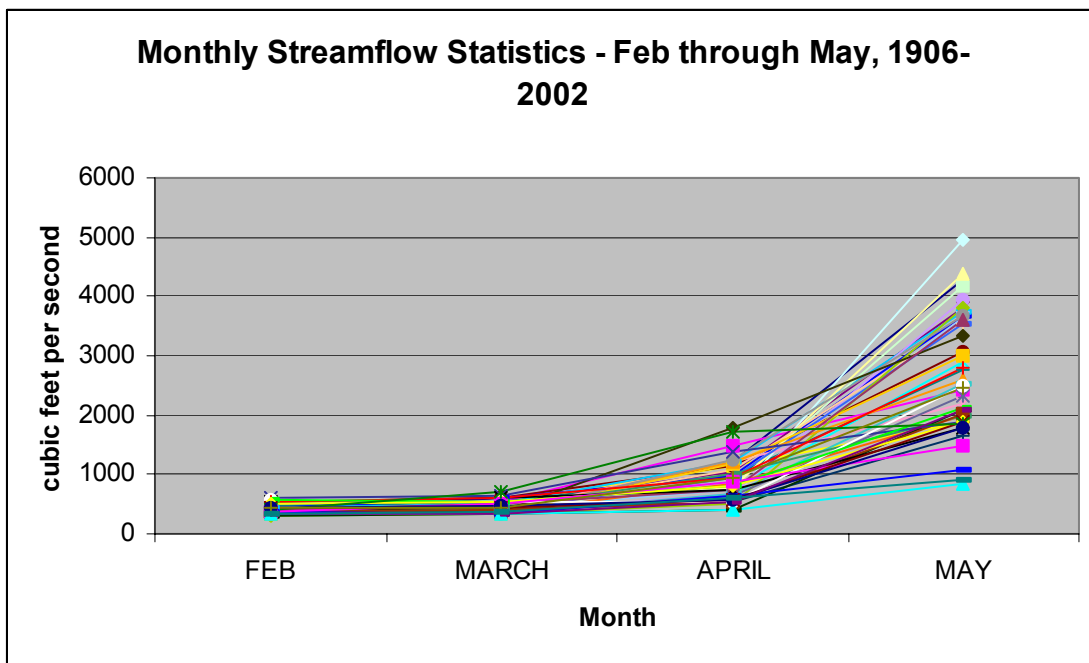


Figure 5. USGS Gage # 09085000 Roaring Fork River Monthly Streamflow at Glenwood Springs, CO: February-May, 1906-2002

3.4 Water Quality

The Roaring Fork River is classified by the State Water Quality Control Commission as an Aquatic Life Coldwater – Class 1, Recreation, Class 1, water supply and agriculture River (Hempel and Crandall, 2001). The water quality of the Upper Colorado River Basin has been reported as some of the best in the State. Current water quality issues associated with increased development include wastewater treatment discharges, storm water runoff, increased erosion and sediment loading (Hempel and Crandall, 2001). State standards for water quality have been designated for physical and biological components such as dissolved oxygen, inorganic nutrients and metals (CDPHE, 1999).

The Proposed Action alternative would have short-term minimal effects on water quality at the location of the 27th Street Bridge and downstream to the Colorado River. These effects would be due to construction in the River and diverting half of the River. Some sediment from the construction would enter the River. These effects would be very short-lived and would dissipate once the project is complete. Therefore, water quality would be affected only for a very short period. The Proposed Action alternative would have no significant affect on water quality.

3.5 Air Quality and Noise

Glenwood Springs is in Garfield County, which is in the West Slope Region for regional air quality perspective per the Colorado Air Quality Control Commission. The Western Slope Region is comprised of counties lying west of the Continental Divide. Main sources of air pollution in this region are motor vehicles, woodburning and street sand

dust (CDPHE, 2002). Pollutants monitored and detected in this region are for counties other than Garfield with Grand Junction in Mesa County being the closest. Grand Junction had high levels of carbon monoxide and PM_{2.5} in 2001-2002. Air quality in the project area is generally good because of its rural setting.

Use of heavy equipment and ground disturbance would cause some dust to enter the air in the project area. Since work would take place along the banks of the River and in the River, dust is predicted to be minimal since the adjacent waterway would have a dampening effect. Pollution from construction equipment would be minimal. Air quality would not be significantly adversely affected by the Proposed Action.

Ambient noise levels are typically very low in and around the proposed project area. A temporary increase in noise levels from the operation of heavy equipment and associated vehicles during construction is expected. This impact would be of short duration during construction only. Operation of these vehicles would be during normal working hours. Therefore, the Proposed Action alternative would have no significant affect on air quality and noise.

3.6 Aesthetics

During construction, heavy equipment would be present at the project site as well as the staging area. Equipment would be parked as unobtrusively as possible in order to reduce effects on aesthetics in the area. Once construction is complete, the boulder rip-rap would be under water under the normal low water mark so they would not be visible. Therefore, the Proposed Action would not significantly affect aesthetics.

3.7 Vegetation Communities

Within the vicinity of the 27th Street Bridge the following vegetation occurs along the banks of the river: mountain maple, Douglas fir, alder, river birch, scrub oak, narrowleaf cottonwood, mountain willow, coyote willow, Gamble oak, chokecherry and wax current (Olgeirson and Leisure, 1996). Other trees common to the area include Russian olive, green ash, and box elder. Shrubs common to the area include red osier dogwood, wild plum, hawthorn, bush honeysuckle, rabbitbrush, and Canada thistle. Many herbaceous plants exits including chaenactis, salsify, yarrow, cow parsnip, clover, thelaspi, horsetail, foxtail, peavine, wild licorice, alfalfa, as well as sedges, and rushes. Grasses present include western wheatgrass, smooth brome, mannagrass, reedgrass, Colorado wild-rye, gooseberry, and meadow fescue.

Access for construction equipment would be along the west bank of the bridge and the River (see Figure 6). Staging of vehicles would occur further away from the bank of the River at an area designated by the local sponsor. Minimal vegetation would be disturbed in this area and reseeding would occur once the project is complete. Trees would be avoided if at all possible. If any tree is disturbed it would be replaced at a 3:1 ratio by species or as prescribed below. Potential species for seeding and revegetation adapted from the Native Plant Revegetation Guide for Colorado (1998) are provided in Table 2. These species, or others suggested, are to be agreed upon with the local sponsor.

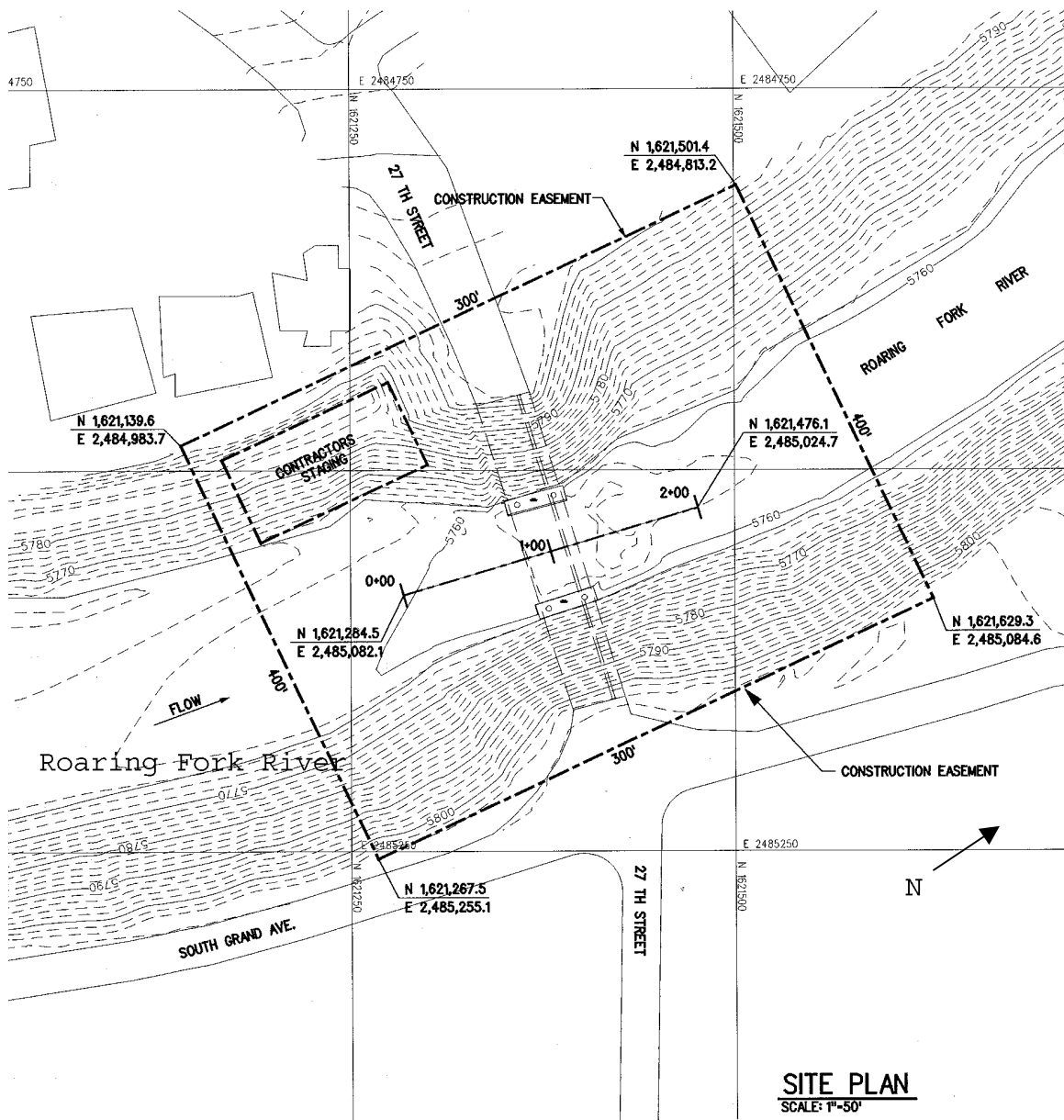


Figure 6. Access route for construction
 (note: preferred location is northwest corner of bridge but contractor may need
 access along whole west bank),
27th Street Bridge Emergency Streambank Protection,
Glenwood Springs, Colorado, 2003-20004

Table 2. Proposed revegetation species			
Common name	Species name	Planting density	Type of installation
Narrowleaf cottonwood	<i>Populus angustifolia</i>	3-5/acre	Pole or containerized stock
Pine species	<i>Pinus</i> species	3-5/acre	Containerized stock
Peachleaf willow	<i>Salix amygdaloides</i>	5-10/acre	Pole or containerized stock
Sandbar willow	<i>Salix exigua</i>	15-20/acre	Whips planted on bank edge
Box elder	<i>Acer negundo</i>	3-5/acre	Containerized stock
Great Plains false-willow	<i>Baccharis salicina</i>		Containerized stock
Netleaf hackberry	<i>Celtis reticulata</i>		Containerized stock
The remaining species would be included in a native seed mix with additional species and quantities to be determined at a later date:			
Western wheatgrass	<i>Pasopyron smithii</i>		Seed
Prairie cordgrass	<i>Spartina pectinata</i>		Seed
Switchgrass	<i>Panicum virgatum</i>		Seed

Therefore, the Proposed Action would not significantly affect vegetation communities in the area.

3.8 Floodplains, Wetlands and Waters of the U.S.

Executive Order 11988 (Floodplain Management) provides Federal guidance for activities within the floodplains of inland and coastal waters. Preservation of the natural values of floodplains is of critical importance to the nation and the State of Colorado. Federal agencies are required to “ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management.” Only access roads and construction areas will be located in the floodplain on a short-term basis during construction. These impacts would be minimal due to careful management of equipment in or near the waterway. Impacts to all access, staging and disturbed areas would be mitigated by replanting of vegetation as well as stabilization of the bank, which will aid in the overall goal of the project to protect the bridge footers. Therefore, the Proposed Action may minimally affect the floodplain, and only during construction on a short-term basis.

Executive Order 11990 (Protection of Wetlands) requires the avoidance, to the extent possible, of long- and short-term adverse impacts associated with the destruction, modification, or other disturbances of wetlands. There are no wetlands in the project area. Therefore, the Proposed Action would not impact wetland communities in the 27th Street Bridge area of the Roaring Fork River.

Section 404 of the Clean Water Act, (CWA; 33 U.S.C. 1251 *et seq.*) as amended, provides for the protection of waters of the United States through regulation of the

discharge of dredged or fill material. The Corps' Regulatory Program (33 CFR Parts 320-330) requires that a Section 404 evaluation be conducted for all proposed construction that may affect waters of the United States. The 404-evaluation process, which addresses the effects of discharged fill material on waters of the United States, would be conducted by the Corps' Sacramento District Regulatory Branch. The proposed project would most likely fall under a Nationwide Permit under Section 404 of the CWA.

Section 401 of the CWA, (CWA: 33 U.S.C. 1251 *et seq.*) as amended, requires that a Water Quality Certification Permit be obtained for anticipated discharges associated with construction activities or other disturbance within waterways. The State of Colorado Department of Public Health and Environment Water Quality Control Division has statutory authority over issuance of the above-mentioned permit. By Colorado statute, authority to proceed under a Nationwide Permit for Section 404 of the CWA automatically permits the applicant under Section 401.

Section 402 of the CWA, (CWA; 33 U.S.C 1251 *et seq.*) as amended, specifies that storm-water discharges associated with construction activities shall be conducted under National Pollutant Discharge Elimination System (NPDES) guidance and is administered by the EPA. Construction activities associated with storm-water discharges regulated by NPDES include activities such as clearing, grading, and excavation, which result in a disturbance to one or more acres of land. These types of activities subject the underlying soils to erosion by storm-water. Therefore, a Storm Water Pollution Prevention Plan (SWPPP) is required and would be prepared for this project. Generally, erosion impacts from storm-water are expected to be negligible, as soils at the site should sufficiently retain and hold storm water inputs throughout the project duration.

The documentation contained in Appendix A should be referenced for specific issues and questions relating to impacts upon water resources governed by these regulations (Sections 404 & 401 of the CWA). CWA and NEPA compliance processes were coordinated. All general and special conditions of both permits/certifications would be addressed in the final design plans and specifications for the proposed project. All CWA documentation will become part of the permanent project record. The final permit documentation will be available for review through the Corp's Sacramento District Regulatory Office when completed.

The Corps and the local sponsor, in close coordination with any and all contractors, would be responsible for meeting the general and special conditions of the above permits and would use best management practices as described in Section 3.1, and avoidance by design, to prevent or minimize effects to water resources during and after construction. Corps Contracting Officers, or their representatives, would be required to monitor and inspect any contractor's compliance with project specifications regarding the conditions set forth under the CWA permits and best management practices employed to conform to those permit conditions.

3.9 Wildlife

There are numerous fish species in the watershed, which leads to the headwaters of the Colorado River including brook, brown, rainbow and Colorado River cutthroat trout, and mountain whitefish (Hempel and Crandall, 2001).

Amphibian species known to occur in Garfield County include bullfrog, Great Basin spadefoot, mountain toad, Northern leopard frog, tiger salamander, Western chorus frog, and Woodhouse's toad (NDIS, 2003). Reptiles known to occur in Garfield County include the Colorado side-blotched lizard, desert striped whipsnake, fence lizard, gopher snake, Great Plains rat snake, longnose leopard lizard, milk snake, night snake, Northern sagebrush lizard, Northern tree lizard, Northern whiptail, Plateau striped whiptail, racer, short-horned lizard, smooth green snake, Southwestern black-headed snake, wandering garter snake, and Western rattlesnake (NDIS, 2003).

Over 200 species of birds are known to occur in Garfield County (NDIS, 2003). Those likely to occur in or near the River include American Avocet, American Coot, American Kestrel, Ash-throated Flycatcher, American White Pelican, Bald Eagle, Belted Kingfisher, Bewrick's Wren, Black-crowned Night-Heron, Black-necked Stilt, Blue Grosbeak, Brown-headed Cowbird, Cassin's Kingbird, Cattle Egret, Clarks's Grebe, Cooper's Hawk, Cordilleran Flycatcher, Double-crested Cormorant, Dusky Flycatcher, Eastern Kingbird, Golden Eagle, Gray Flycatcher, Great Blue Heron, Green-tailed Towhee, Hammond's Flycatcher, Marsh Wren, Mallard, Northern Shoveler, Northern Waterthrush, Olive-sided Flycatcher, Osprey, Red-tailed Haw, Red-winged Blackbird, Ring-necked Duck, Sandhill Crane, Snowy Egret, Virginia Rail, Western Kingbird, White-faced Ibis, Willow Flycatcher, Wood Duck, and Yellow-billed Cuckoo.

Mammals common to the area that might occur near the River include American beaver, big brown bat, big free-tailed bat, black-tailed jackrabbit, Brazilian free-tailed bat, bushy-tailed woodrat, California myotis, common muskrat, common porcupine, coyote, deer mouse, desert cottontail, ermine, fringed myotis, golden-mantled ground squirrel, hoary bat, house mouse, kit fox, little brown myotis, long-tailed vole, long-tailed weasel, Northern river otter, pallid bat, plains pocket mouse, silver-haired bat, spotted bat, thirteen-lined ground squirrel, Western harvest mouse, water shrew, Western jumping mouse, Western small-footed myotis, white-tailed jackrabbit, and Yuma myotis (NDIS, 2003).

Numerous aquatic insects have also been identified in the watershed by the Colorado Natural Heritage Program such as caddisflies, stoneflies, mayflies, midges (Hempel and Crandall, 2001).

Many of these species may be present in the project area, so disturbance may be possible during construction. Although, since construction is proposed to take place in early spring, many species may not have returned or may still be hibernating. If present, most species would vacate the area and return upon completion of construction. Some of the smaller species such as insects, small lizards and amphibians and reptiles, as well as

small mammals may be displaced due to the construction or even harmed. Efforts would be made to avoid holes in the ground or other areas that look like they may be homes to wildlife. Some insect species may be disrupted during construction and possibly harmed. Most insect larvae are deep in the mud below the gravel and sand layer of the river bed though some caddisfly cases may be present in the gravel layer that may be disturbed.

Diversion of the river during construction would occur on only one side of the river at a time. Passage of fish and other aquatic species would be allowed to occur during construction. Therefore, the Proposed Action may affect the existing wildlife community, but these impacts are anticipated to be minimal on a short-term basis during construction only.

3.10 Endangered and Protected Species

Three agencies who have primary responsibility for the conservation of animal and plant species in Colorado are the U.S. Fish and Wildlife Service (USFWS), under authority of the Endangered Species Act of 1973 (as amended) and the Colorado Division of Wildlife under the authority of the Wildlife Conservation Act of 1974. Each agency maintains a list of animal and/or plant species that have been classified or are candidates for classification as endangered or threatened based on present status and potential threat to future survival and recruitment. Information regarding species listed as State Imperiled for Garfield County was gained from the Colorado Natural Heritage Program web site (<http://www.cnhp.colostate.edu/>, 2003). Species on those respective lists are listed in Table 3. Those with potential to occur in or near the project are discussed below.

Table 3: Federal and State of Colorado species of concern.			
<i>Species</i>	<i>Federally listed</i>	<i>Federal Candidate</i>	<i>Listed as State Imperiled, Garfield County</i>
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	X		X
Mexican spotted owl (<i>Strix occidentalis</i>)	X		
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>)		X	
Boreal toad (<i>Bufo boreas boreas</i>)		X	X
Canada lynx (<i>Lynx Canadensis</i>)	X		X
Gunnison sage-grouse (<i>Centrocercus minimus</i>)		X	
Humpback chub (<i>Gila cyphai</i>)	X		
Bonytail Chub (<i>Gila elegans</i>)	X		
Colorado pikeminnow (<i>Ptychocheilus lucius</i>)	X		
Razorback sucker (<i>Xyrauchen texanus</i>)	X		X
DeBeque Phacelia (<i>Phacelia submutica</i>)		X	
Parachute beardtongue (<i>Penstemon debilis</i>)		X	X
Uinta Basin hookless cactus (<i>Sclerocactus glaucus</i>)	X		X

Table 3 (cont'd)			
Great Basin spadefoot toad (<i>Spea intermontana</i>)			X
Boreal Owl (<i>Aegolius funereus</i>)			X
Sage Sparrow (<i>Amphispiza belli</i>)			X
Barrow's Goldeneye (<i>Bucephala islandica</i>)			X
Ferruginous Hawk (<i>Buteo regalis</i>)			X
Sage Grouse (<i>Centrocercus urophasianus</i>)			X
Black Swift (<i>Cypseloides niger</i>)			X
Peregrine Falcon (<i>Falco peregrinus anatum</i>)			X
Sandhill Crane (<i>Grus canadensis tabida</i>)			X
White-faced Ibis (<i>Plegadis chihi</i>)			X
Sharp-tailed Grouse (<i>Tympanuchus phasianellus columbianus</i>)			X
Gray Vireo (<i>Vireo vicinior</i>)			X
Roundtail chub (<i>Gila robusta</i>)			X
Colorado River cutthroat trout (<i>Oncorhynchus clarki pleuriticus</i>)			X
Townsend's big-eared bat (<i>Corynorhinus townsendii pallescens</i>)			X
White-tailed prairie dog (<i>Cynomys leucurus</i>)			X
Spotted bat (<i>Euderma maculatum</i>)			X
Wolverine (<i>Gulo gulo</i>)			X
Kit fox (<i>Vulpes macrotis</i>)			X
Yellow-dotted Alpine butterfly (<i>Erebia pawlowskii</i>)			X
Saffron-winged meadowhawk (<i>Sympetrum costiferum</i>)			X
Western yellow-bellied racer (<i>Coluber constrictor mormon</i>)			X
Western rattlesnake (<i>Crotalus viridis concolor</i>)			X
Great Plains rat snake (<i>Elaphe guttata</i>)			X
Longnose leopard lizard (<i>Gambelia wislizenii</i>)			X
Smooth green snake (<i>Liochlorophis vernalis</i>)			X
Tree lizard (<i>Urosaurus ornatus</i>)			X

This DEA is intended to meet the requirements of Section 7 of the Endangered Species Act. A determination of effect to federally listed species is included in the discussion for each species below.

Bald Eagle

The Bald Eagle is likely to potentially occur in the project area. It is listed as Threatened by the U.S. Fish and Wildlife Service, listed by the Colorado Division of Wildlife as Threatened, and listed by the Colorado Natural Heritage Program (CNHP) as State Critically Imperiled during the Breeding Season and State Vulnerable during the Non-Breeding Season. The Bald Eagle was originally listed as Endangered in 1967 and downlisted to Threatened in 1995. Currently there are 20 breeding pairs statewide (NDIS, 2003) though winter populations in Colorado have remained stable for the past 20 years. Loss of nesting habitat remains the biggest threat as well as high pesticide use, poisoning, and poaching.

Bald Eagles are frequently seen throughout the Roaring Fork Valley and return around the middle of November through late February or early March (Hoffman and O'Keefe, 2003). The birds mainly winter in the Roaring Fork Valley, fishing its open waters, although there have been no known occurrences of nesting (see Figure 7). For the most part, they travel north in the summer to breed. Avoiding or minimizing disturbance to the dominant native overstory trees, where present, would protect any potential perching or roosting sites.

To minimize the potential for disturbing Bald Eagles utilizing adjacent habitat, work would take place outside of the Bald Eagle high use months of December, January and early February. If a Bald Eagle is present within 0.25 mile of the project area in the morning before activity starts, or arrives during breaks in project activity, the contractor would be required to suspend all activity until the bird leaves of its own volition, or a Corps biologist, in consultation with the USFWS, determines that the potential for harassment is minimal. However, if an eagle arrives once activity is underway or one hour after legal sunrise, or if an eagle is beyond 0.25 mile of the site, activity would not be interrupted.

Implementation of these measures would preserve undisturbed Bald Eagle use of foraging and perching habitat in the riparian area adjacent to the 27th Street Bridge if activity occurs while the bird is present. For these reasons, the proposed work at the 27th Street Bridge may affect but is not likely to adversely affect the Bald Eagle. Concurrence on this determination and the recommendations to protect the species would be sought from the USFWS prior to beginning the project.

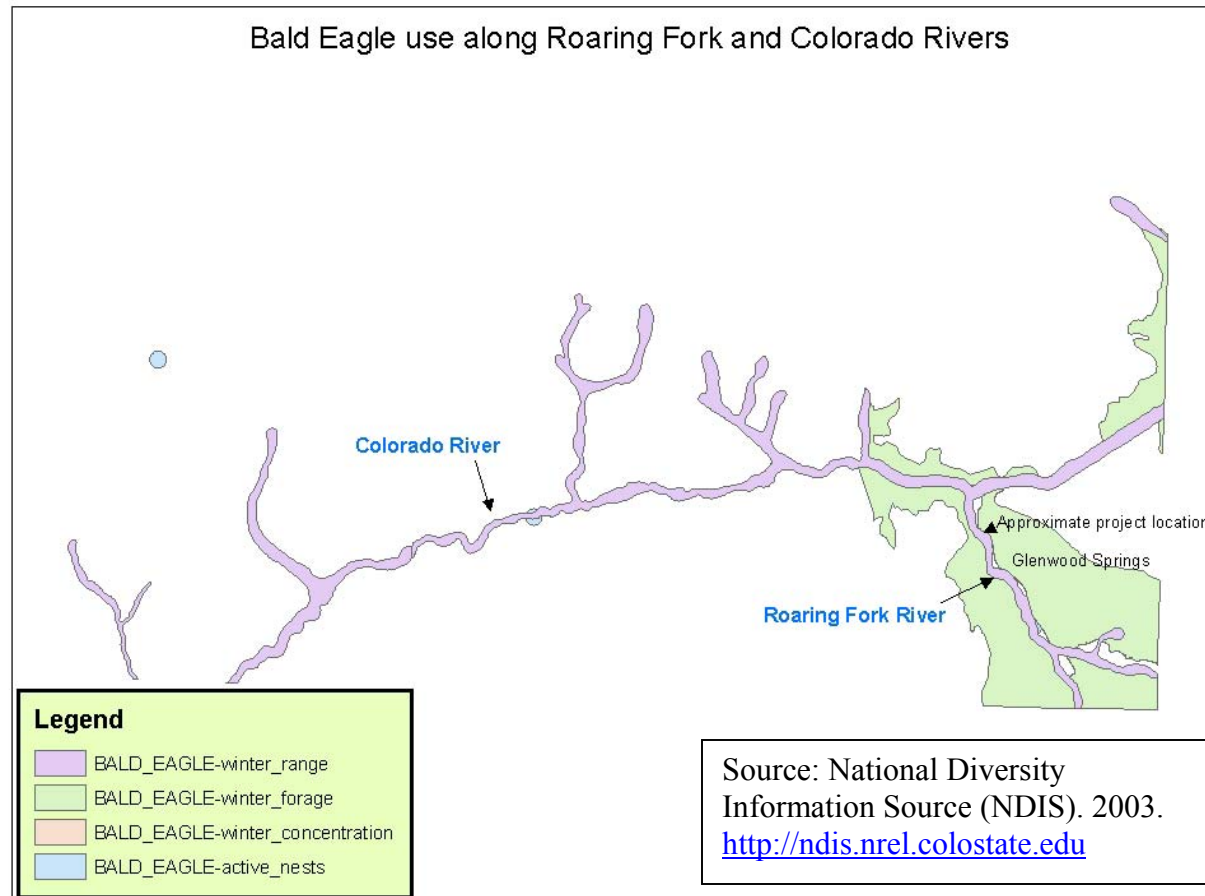


Figure 7. Bald Eagle use along the Roaring Fork and Colorado Rivers

Mexican Spotted Owl

The Mexican spotted owl was listed as a federally threatened species on 15 April 1993. A recovery plan for the species was released in December 1995. It is listed as both federally and state threatened as well as CNHP imperiled species. The following information is taken from the U.S. Fish and Wildlife Service web site:

The Mexican spotted owl occurs from southern Utah and Colorado south through the mountains of Arizona, New Mexico, and west Texas into the mountains of central Mexico. Gaps remain in our knowledge of the distributional pattern of the Mexican spotted owl within this range, however. Information gaps exist in the United States. For example, several mountain ranges in west-central Arizona remain unsurveyed, and numerous canyon systems that may contain spotted owl habitat in southern Utah have not been surveyed for owls.

Despite these gaps, it is apparent that the Mexican spotted owl is widely but patchily distributed throughout its' range in the United States, with distribution reflecting the availability of forested mountains and canyons, and in some cases rocky canyonlands. Consequently, the owl's habitat within the Southwest is naturally fragmented (<http://mso.fws.gov/Distribution.cfm>, 2003).

In the recovery plan (USFWS, 2003), recovery units (RU) were established. The proposed project is within the Southern Rocky Mountain Physiographic Province. The Colorado-New Mexico state line delimits the southern boundary of this RU. The Mexico spotted owl reaches the northeastern limit of its range in the RU. The owls appear to occupy canyon habitat types containing widely scattered patches of mature Douglas-fir in or near canyon bottoms or high on the canyon walls. Mature Douglas-fir, white fir, and ponderosa pine dominate canyon bottoms and both north and east-facing slopes.

The species is likely to occur in Garfield County but not likely to occur in the project area. No individuals are known to occur at the project site. Therefore, the Mexican Spotted Owl would not be affected by the Proposed Action alternative.

Yellow-Billed Cuckoo

The Yellow-Billed Cuckoo (Cuckoo) is a candidate species for federal protection under the ESA. It has been shown to historically occur in Colorado. This species overwinters from northern South America south to northern Argentina. The Cuckoo is an uncommon summer resident in Colorado. Few sightings of the Cuckoo have occurred in western Colorado along the Colorado River near Grand Junction (USFWS, 2002), though no individuals have been sited in the project area. Therefore, it has been determined that the Yellow-Billed Cuckoo would not be affected by the Proposed Action alternative since the species is not known to be present in the project area.

Boreal Toad

The Boreal Toad is a candidate species for federal protection under the ESA and is State Endangered in Colorado. The species is known to occur in Garfield County (NDIS, 2003) but it is unknown if the species occurs in the project area. The toad typically lives in damp conditions in the vicinity of marshes, wet meadows, streams, beaver ponds, glacial kettle ponds, and lakes interspersed in subalpine forest (lodgepole pine, Englemann spruce, subalpine fir, and aspen) in southern part of the Rocky Mountains. The elevational range is mainly 8,500–11,500 feet. It is unlikely that it would occur in the project area that is at a lower elevation and vegetated with riparian vegetation. Therefore, there would be no affect to the boreal toad by the Proposed Action alternative.

Humpback chub

The humpback chub is currently listed as an endangered species with the USFWS. A recovery plan has been developed for the species and critical habitat has been designated. There have been no documented captures of the fish on the Roaring Fork River (USFWS, 2002), critical habitat has not been designated in the project area, and the species is not known to occur in the project area. Therefore, the humpback chub would not be affected by the Proposed Action alternative.

Bonytail chub

The bonytail chub is currently listed as an endangered species with the USFWS. A recovery plan has been developed for the species and critical habitat has been designated. There have been no documented captures of the fish on the Roaring Fork River (USFWS, 2002), critical habitat has not been designated in the project area, and the species is not known to occur in the project area. Therefore, the bonytail chub would not be affected by the Proposed Action alternative.

Colorado pikeminnow

The Colorado pikeminnow is currently listed as an endangered species with the USFWS. The Colorado pikeminnow is a torpedo-shaped fish with an olive-green and gold back, silver sides and a white belly (USFWS, 2003). There are currently found in the upper Colorado River basin outside of the project area, and no critical habitat has been designated in the project area (USFWS, 2002). Therefore, the Colorado pikeminnow would not be affected by the Proposed Action alternative.

Razorback sucker

The razorback sucker is listed as an endangered species by the USFWS. The razorback sucker was once widespread throughout most of the Colorado River Basin from Wyoming to Mexico. They are now found only in the upper Green River in Utah, the lower Yampa River in Colorado and occasionally in the Colorado River near Grand Junction (USFWS, 2003). There are currently found in the upper Colorado River basin outside of the project area and no critical habitat has been designated in the project area (USFWS, 2002). Since they do not occur in the project area, the razorback sucker would not be affected by the Proposed Action alternative.

Uinta Basin hookless cactus

The Uinta Basin hookless cactus (cactus) is found in rocky hills, mesa slopes and alluvial benches in desert shrub communities. It is not likely to occur in the project area.

Therefore, the cactus would not be affected by the Proposed Action alternative.

In conclusion, the Corps has determined that the proposed action may affect but is not likely to adversely affect the Bald Eagle and will have no effect on all other Federally listed species.

3.11 Cultural Resources

On November 7, 2002, a Corps archaeologist conducted a site visit to the project area. No intensive cultural resources inventory survey was conducted due to the fact that both river banks/bridge abutments at the 27th Street (Sunlight) Bridge have been heavily disturbed by the placement of significant amounts of earthen fill materials and by the construction of the bridge footings during original bridge construction. Due to this original, significant disturbance, the archaeologist only visually inspected the project area rather than conducting an intensive, systematic survey. The proposed project area encompasses approximately 0.5 hectares (1.4 acres). The project's staging area is located a short distance to the south of the project area in a city-owned, previously disturbed lot that has been utilized for similar construction purposes in the past. Since this area has been also previously disturbed by construction activities, the staging area was not surveyed for cultural resources.

Generally, there have not been many cultural resource surveys conducted in the immediate vicinity of the Glenwood Springs project area. Area surveys that have been conducted are in support of State Highway Department construction and quarrying activities and those surveys that have been conducted by the U.S. Bureau of Land Management and U.S. Forest Service in support of mining and exploration, access roads, logging operations, and recreational activities. Archaeological work, culture history overviews and local histories include reports by Urquhart (1983), Nelson (1999), Mehls (1982), O'Rourke (1980), Nickens (1988), P. Smith (1990), A. Smith (1974), and D'Azevedo (1986).

On August 9, 2002, the Corps contacted the Colorado Historical Society for information regarding archaeological and historic properties that may be present in the Glenwood Springs project area. Several properties are reported to occur within Glenwood Springs such as the last resting place of the famous Doc Holliday of the OK Corral gunfight fame (5GF1260), the historic Linwood Cemetary (5GF1261), the historic Glenwood Ditch (5GF1457), the historic Denver and Rio Grande Western Railroad (grade; 5GF1661) and the Colorado Midland Railroad Grade (5GF1663) as well as the branch known as the Aspen and Western Railroad (5GF469), the historic Atkinson Canal (5GF1662), and the historic Sumers Lodge (5GF2363). Local survey work includes a historic properties inventory and linear surveys for utilities, pipelines, and electrical transmission lines such as those conducted by Patterson and Michael (1978), Crouch (1980), Kight (1990; 1988), Lischka (1991), Phillips and Hackett-Bambrey (1997), Chambellan and Mehls (1998), and Sladek (1999).

Within the project area, the historic Atkinson Canal (5GF1662) traverses, from south to north, along the west (left-hand) bank of the Roaring Fork River. The Atkinson Canal was originally given a ditch number of 79C and had water rights that dated from the 20th of December, 1884. Its diversion point (headgate) is located on the south (left-hand) bank of the Roaring Fork River about 1/4 mile upstream from the Cardiff Bridge crossing. The Atkinson Canal was built by Fred Atkinson who operated a limestone quarry and was manufacturing bricks. It is likely that at least some of the Atkinson Canal water was delivered for use at his "...second brick yard [that] was [located] at the base of Red Mountain..." (Urquhart 1983:40; Nelson 1999:62). The Canal also delivered irrigation water to what was known as the Wulfsohn Ranch (pers. comm. King Lloyd, Assistant City Engineer, November 7, 2002). Julius Wulfsohn had purchased the "Cedarbank" mansion and associated property on the south bank of the Colorado River from Walter and Mary Devereux in 1910; the Wulfsohn (Cedarbank) Mansion had earlier been described as a castle (actually a three story brick structure) built by Captain E. E. Prey in about 1885, with Atkinson brick (Urquhart 1983:25 [photograph], 40-41, 67, 88 [photograph], 126, 146; Nelson 1999:62-63, 144, 194). Although the Prey/Devereux/Wulfsohn Mansion was destroyed in 1959 and the Atkinson Canal is no longer in use, the Atkinson Canal ditch remains and the City of Glenwood Springs has applied for funding to utilize its banks for a recreational walking trail (pers. comm. King Lloyd, Assistant City Engineer, November 7, 2002; Olgeirson and Leisure 1996).

The Atkinson Canal, as determined from the USGS Glenwood Springs 7.5 Minute Quadrangle map (39107-E3), is about 6,595 meters (about 4.1 miles, 21,638 feet) in length. When the 27th Street Bridge was originally constructed in about 1969, the west end of the bridge was constructed over the Atkinson Canal. For the proposed project, access to the Roaring Fork River channel is proposed from the southwest corner of the bridge; therefore, the access route would cross the Atkinson Canal. Currently, there is a short corrugated steel culvert in the Canal's ditch at this location; however, the existing small/short culvert may need to be replaced with a longer culvert or may be removed altogether. Crossing the ditch to access the river; however, would have a negligible effect to the historic Atkinson Canal.

Also near the project area, to the west, is where the old Colorado Midland Railroad Grade (5GF1663) was once located; however, in this area the old railroad grade has been converted to a city street, Midland Avenue. The Colorado Midland Railroad tracks were removed in 1919 (Nelson 1999:157). The proposed project would have no effect on the Colorado Midland Railroad Grade. There are no other known sites or properties within or immediately adjacent to the proposed construction area and no artifacts or other cultural resource manifestations were observed during the site visit. There are no known Traditional Cultural Properties in the project area.

Other than the Atkinson Canal, there are no known cultural resources located within the boundaries of the proposed construction area although intact archaeological deposits may be found almost anywhere in the region. Known sites in the region include Archaic, Formative, Protohistoric and Historic Era sites and range from surface lithic and ceramic

scatters, temporary surface campsites, sedentary campsites, to rock shelters. PaleoIndian sites may also occur in the area. Evidence from known sites indicate that human use of the region has been lengthy and includes mobile hunter/gatherer subsistence strategies to highly complex and specialized social groups.

The Corps is of the opinion that there would be "No Historic Properties Affected" by construction of the proposed project. Documentation of cultural resources consultation is attached in Appendix B.

3.12 Socioeconomic Considerations

Of the 1,134,173 acres in Garfield County, approximately 60% are federally owned lands – Bureau of Land Management, U. S. Forest Service and Bureau of Reclamation (Garfield County Quick Facts, 2003). Main industries include tourism, gas and coal mining, sheep and cattle ranching, and fruit and vegetable growing.

In the year 2000, there were 45,521 people in Garfield County (US Census Bureau, 2003). The ethnic distribution within the County is 90 percent Anglo, and the remainder split between black or African American, American Indian and Alaska Native persons, Asian persons, Hispanic, and Native Hawaiian. The main sources of employment are management, professional and related occupations; sales and office occupations; construction, extraction and maintenance occupations; and service occupations (US Census Bureau, 2000). For the year 2000, the median household income was \$47,016 (US Census Bureau, 2000).

The Proposed Action alternative would not adversely affect the social or economic well being of the region and may potentially benefit by assuring that the main bridge crossing used in Glenwood Springs is maintained in a safe, useful condition for the Glenwood Springs community, industry and tourism.

3.13 Land use and Recreational Resources

The predominant land use in the project area is light industrial to commercial. The City of Glenwood Springs surrounds the Roaring Fork River on either side of the 27th Street Bridge. Average daily traffic on the 27th Street Bridge is 10,000 vehicles per day (Garfield County, 2003). The project would increase the life of the bridge, which provides access to the major land uses in the project area. Therefore, the Proposed Action alternative would benefit land use in the area.

The Roaring Fork River is a cold water fisheries and used for sport fishing in the area. The proposed Roaring Fork River Trail would be constructed beginning at Sunlight Bridge and heading to the south. This trail would utilize the irrigation canal network associated with the utility road approximately 30 feet above the Roaring Fork River (Olgeirson and Leisure, 1996). The proposed trail alignment would not be impacted during construction. There would be temporary aesthetic effects, which would be viewed from the trail alignment, but these will be during construction only. Therefore, the Proposed Action alternative will not significantly affect recreational resources.

3.14 Hazardous, Toxic, and Radioactive Waste

Based on Corps photographs obtained during site visits, the Albuquerque District's Hazardous, Toxic, Radiological Waste (HTRW) Section does not believe there are any potential hazardous waste concerns at this site. No staining or discolored soil was reported by personnel who have visited the site. No samples for waste characterization were collected or would be required during construction. If suspicious odors, debris or soil staining are observed during construction, operations shall be suspended until Albuquerque District HTRW personnel are notified and consulted for further action.

3.15 Environmental Justice

Executive Order 12898 (Environmental Justice) requires "to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report of the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations..." The staging area would be adjacent to a commercial structure and would be sited by the local sponsor. The staging area has been identified to be a safe distance away from pedestrian and vehicular traffic and would be used on a short-term basis during construction only. BMPs would be used to ensure the least amount of impact to the staging area property. The project would not disrupt or displace any residential structures. The work has been reviewed for compliance with this order and it has been determined that the Proposed Action alternative would not adversely affect the health or environment of minority or low-income populations.

3.16 Noxious Weeds

The Federal Noxious Weed Act of 1974 (Public Law 93-269; U.S.C. 2801) provides for the control and eradication of noxious weeds and their regulation in interstate and foreign commerce. Executive Order 13112 directs Federal agencies to prevent the introduction of invasive (exotic) species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause. All equipment should be cleansed at the end of each day during the life of the proposed construction.

As stated above, all disturbed areas will be reseeded with native seed after construction. It will be the responsibility of the local sponsor to monitor the project area post-construction for invasions by weedy species.

3.17 Human Health and Safety

There will be no impact to human health by the Proposed Action but there may be moderate benefit to safety by the Proposed Action. The 27th Street bridge abutments would be stabilized which would increase the life of the bridge under the Proposed Action alternative.

3.18 Cumulative Effects

The adverse cumulative impacts upon the biological resources of the proposed project would be negligible. Conversely, the proposed project would substantively benefit the

community of the project area by stabilizing and thereby increasing the life of the bridge, avoiding future problems such as erosion and other forces that could negatively impact the Roaring Fork River, and sustaining the socioeconomic stability of the Glenwood Springs community. Currently, there are no known planned or future projects in the project area.

4.0 Preparation, Consultation, and Coordination

4.1 Preparers

Ondrea Hummel – Biologist, Environmental Resources Section, Planning Branch
Gregory Everhart – Archaeologist, Environmental Resources Section, Planning Branch
Gary Rutherford – Project Manager, Planning Branch
Fermin Chavez – Civil Engineer, General Engineering Section, Engineering and Construction Division
Jud Lee – Hydraulic Engineer, Hydrology & Hydraulics Section, Planning Branch
R. Eric Pease, P.E. – Civil Engineer, Geotechnical & HTRW Branch

4.2 Consultation and Coordination

Agencies and other entities contacted formally or informally in preparation of this DEA include:

City of Glenwood Springs
U.S. Fish and Wildlife Service
Colorado River District
Colorado State Historical Society
Northern Ute Tribe
Southern Ute Indian Tribe
Ute Mountain Ute Tribe

An example scoping letter and list of persons/agencies included in the scoping process is provided in Appendix A.

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APPENDIX A
BIOLOGICAL COORDINATION

1. Scoping letter

March 3, 2003

Engineering and Construction Division
Environmental Resources Branch

Colorado Division of Wildlife
50633 Highway 6 and 24
Glenwood Springs, CO 81601

Dear :

The U.S. Army Corps of Engineers, Albuquerque District, is working with the City of Glenwood Springs on an Environmental Assessment (EA) for the bridge protection of the 27th Street Bridge pier footers. See Exhibit 1 for the proposed location map.

The 27th Street Bridge is in Glenwood Springs, Garfield County, Colorado. The City has resurfaced the bridge due to failing of the deck. Scour investigation reports showed that the added weight from the new deck have made it a critical situation to abate future scour of the bridge footers. Therefore, the City has requested assistance from the U.S. Army Corps of Engineers under Section 14 for emergency shoreline protection. The Roaring Fork River flows under the 27th Street Bridge and future channel scour abatement is required at this time.

The project proposes to wire riprap the existing bridge footers in order to prevent further scour and undercutting. The Roaring Fork River would be blocked and channeled above the project and flows would be released from the channel below the work area. See Exhibit 2 for a preliminary drawing of the proposed construction.

Please send us a current list of state listed or proposed species that may occur in Garfield County, as well as any other comments or concerns you may have for the proposed project. Send your correspondence within 30 days from the date of this letter to:

Ms. Ondrea Hummel
U.S. Army Corps of Engineers, Albuquerque District
Environmental Resources Branch

4101 Jefferson Plaza, NE
Albuquerque, New Mexico 87109-3435

If you have any questions or need additional information, please contact Ms. Hummel at (505) 342-3375, or fax (505) 342-3668, or e-mail address Ondrea.C.Linderoth-Hummel@spa02.usace.army.mil. Thank you.

Sincerely,

Julie A. Hall
Chief, Environmental Resources Branch

Enclosures

Mailing list:

Ms. Patty Gelatt, U.S. Fish and Wildlife Service
Colorado Division of Wildlife
Steve Witte, Colorado Division of Water Resources
Michael Copp, City of Glenwood Springs
Ed Nielson, Natural Resources Conservation Service
U.S. Forest Service: Chris Hirsch, Keith Giezentanner, Andrea Holland-Sears
Bureau of Land Management
The Colorado River District
USGS - Water Resources Division, Western Slope Sub District
U.S. EPA, Region 8 Office
Larry Lang, Colorado Water Conservation Board

2. CWA Coordination

APPENDIX B
CULTURAL RESOURCES COORDINATION

APPENDIX C
PUBLIC REVIEW COMMENTS